

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/790,899	03/01/2004	Ing-Song Lin	250112-1030	2584	
24504	7590 06/20/2006		EXAMINER		
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP			RATCLIFFI	RATCLIFFE, LUKE D	
100 GALLEI STE 1750	100 GALLERIA PARKWAY, NW STE 1750			PAPER NUMBER	
	GA 30339-5948		3662		

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)		
Office Action Summary		10/790,899	LIN ET AL.		
		Examiner	Art Unit		
		Luke D. Ratcliffe	3662		
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SH WHIC - Exter after - If NO - Failu Any (ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DANSIONS of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. It period for reply is specified above, the maximum statutory period were to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing ed patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 16(a). In no event, however, may a reply be tim rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	the mailing date of this communication.		
Status					
2a)⊠	Responsive to communication(s) filed on <u>05 Ap</u> This action is FINAL . 2b) This Since this application is in condition for allowant closed in accordance with the practice under E	action is non-final. ice except for formal matters, pro			
Dispositi	on of Claims				
5) [6) [7) [Claim(s) 1-6 and 11-13 is/are pending in the ap 4a) Of the above claim(s) is/are withdraw Claim(s) is/are allowed. Claim(s) 1-6 and 11-13 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/or	n from consideration.			
Applicati	on Papers				
9) ☐ The specification is objected to by the Examiner. 10) ☑ The drawing(s) filed on 01 March 2004 is/are: a) ☑ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.					
Priority u	ınder 35 U.S.C. § 119				
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 					
Attachmen	t(s)				
1) Notic 2) Notic 3) Inform	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) r No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Pa	(PTO-413) te atent Application (PTO-152)		

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunne (5926260) in view of Schrader (6313464).

Referring to **claims 1 and 11**, Dunne shows a method for light signal reception comprising the steps of transmitting a light beam (figure 1), receiving the light beam (figure 1), determining if a pulse is smaller than a reference voltage (column 7 and 8), outputting the pulse to a processor (column 7 and 8), and amplifying the second received signal (column 7 and 8). However Dunne does not show repeating the steps (A) and (B) to obtain a second received signal.

Schrader shows a transmitting of a light beam to a target (figure 2), receiving the light beam (figure 2 Ref 17f, 20f, and figure 5), eliminating pulses smaller than a reference voltage (figure 5), outputting the pulse to a processor (figure 5-7), repeating the steps (A) and (B) to obtain a second received signal, when in the first received signal, no pulse is higher than the reference voltage (figure 5 and column 7 lines 15-55), and amplifying the second received signal and outputting to the processor to execute

the operational process (figure 5 and column 7 lines 15-55). It would have been obvious to modify Dunne to include the signal processing taught by Schrader because this signal processing would allow for an erroneous return signal without an erroneous result.

Referring to **claim 2**, Schrader shows the use of a comparison circuit in step (C) (figure 5 and column 7 lines 15-55). This is a common circuit to use and adds no new or unexpected results.

Referring to **claim 3**, Schrader shows the use of a gain circuit to amplify the signal in step (F) (figure 5 and column 7 lines 15-55). This is a common circuit to use and adds no new or unexpected results.

Referring to **claim 12**, Schrader shows the use of a processor receiving and processing the pulse of amplified signal and an inherent channel selection circuit electronically connecting the processor to the comparison circuit or to the gain circuit selectively. This is a common circuit to use and adds no new or unexpected results.

Referring to **claim 4**, Schrader shows a amplifier that amplifies a non-linear signal (column 5 line 15-65) however does not explicitly say that the amplifier amplifies the signal non-linearly. This is a common amplifier to use and adds no new or unexpected results.

Referring to **claim 5 and 13**, Schrader shows an amplifier that uses feedback to amplify the signal however does not say that the feedback is from the output terminal of the gain circuit to the input terminal of the gain circuit however this type of gain is well known and adds no new or unexpected results.

Response to Arguments

Applicant's arguments with respect to all applicable claims have been considered but are most in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke D. Ratcliffe whose telephone number is 571-272-3110. The examiner can normally be reached on 8:00-4:30 M-F.

Application/Control Number: 10/790,899 Page 5

Art Unit: 3662

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LDR

THOMAS H. TARCZA SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 3600